

Experimental Sierra Backcountry Forecast Product Description Document

Part I – Mission Connection

- a. Product Description – The Sierra Backcountry Forecast is an experimental web based text product produced by forecasters in support of the Sierra Avalanche Center and the Central Sierra Avalanche Center. The product provides forecasted parameters critical to accurately forecasting avalanche conditions by the Sierra Avalanche Centers. The elements forecasted include temperatures, winds, and sky/weather, all of which affect the stability of the snowpack, changes in the snowpack structure, and ultimately avalanche potential.
- b. Product Type- Operational
- c. Purpose – The Sierra Backcountry Forecast assists avalanche forecasters by providing specific forecasted elements (with more detail than the ZFP) in the upper elevations of the Sierra critical to accurately predicting avalanche potential. The forecast will also be used by backcountry enthusiasts in helping them prepare for weather conditions they should expect to encounter.
- d. Audience – The main audience are forecasters at the Sierra Avalanche Center's and also those venturing into the backcountry of the Sierra.
- e. Presentation Format – The web-based text product is in narrative format created from a GFE formatter and then post-edited.
- f. Feedback Method – Most feedback will come from avalanche forecasters at the Sierra Avalanche Center's through direct contact with WFO personnel. Feedback may also be provided to the Point of Contact: The period of evaluation of this experimental product will run from February 21 to June 01, 2006.

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- g. Example Product URL –
http://www.wrh.noaa.gov/rev/avalanche/backcountry_guidance.php

- h. PDD Approved by Vickie Nadolski, WR Regional Director

Part II – Technical Description

- a. Format and Science Basis – This product was discussed with and requested by avalanche forecasters at the Sierra Avalanche Center. They issue daily avalanche forecasts including a weather synopsis and needed a better forecast that specifically addressed elements critical to snow-slab stability. Winds and ridgetop winds are critical to wind-loading of snow on specific aspects. Snowfall, temperature, and sky cover also have a direct relationship to the stability of the snowpack, and can quickly alter the stability of the snowpack. Avalanche Forecasters at the Sierra Avalanche Center will provide a training seminar to the forecasters highlighting how the forecasted elements impact snow-slab stability. In addition, they will detail weather patterns WFO Reno forecasters should focus on that pose the greatest backcountry/avalanche risk.
- b. Availability – The web-based product will be issued once per day in the morning and not updated. The product will be issued early enough to give avalanche forecasters time to use the information for the issuance of their daily avalanche bulletin.
- c. Additional Information - This product is a direct result from a request made to WFO Reno from the Sierra Avalanche Center. In the past they have had to estimate what the weather conditions were going to be like in the upper elevations of the Sierra where avalanches are most likely. Since they are not trained meteorologists, they felt their avalanche forecasting would be more accurate with a detailed backcountry forecast for the upper elevations of the Sierra which they cannot get in Zone Forecast Product.